General Information or Other (PAR) Event # 40446

Rep Org: MGP INSTRUMENTS		**Notification Date / Time:** 01/14/2004 12:39	(EST)
Supplier: MGP INSTRUMENTS		**Event Date / Time:** 01/14/2004	(EST)
		Last Modification: 01/14/2004	
Region: 1		**Docket #:**	
City: SMYRNA		**Agreement State:** Yes	
County:		**License #:**	
State: GA			
NRC Notified by: DAVID JARROW		**Notifications:** JEFF CLARK	R4
HQ Ops Officer: JEFF ROTTON		JACK FOSTER	NMSS
Emergency Class: NON EMERGENCY			
10 CFR Section:			
21.21 UNSPECIFIED PARAGRAPH			

10 CFR PART 21 NOTIFICATION FOR DEFECTIVE PARTICULATE RADIATION MONITORS

Eight particulate radiation monitoring local processing units manufactured by MGP Instruments, Part # RMS 9040-S with software application 564J were supplied to SCE San Onofre Units 2 and 3. Manufacturer believes 4 units are installed in the following unit skid locations 3RE-7804, 3RE-7807, 2RE-7804, 2RE-7807 and 4 units were supplied as spares. The defect is a possible underestimation of volumetric activity following an auto filter paper advance. The manufacturer determined that you could have a potential underreporting measurement result if the unit program advanced the filter paper immediately following a step change or rapid release in particulate radiation. The manufacturer will revise the application software to handle both conditions simultaneously and advise SCE San Onofre Units 2 and 3 to manually advance the filter paper based on operating experience until the software application can be modified and installed. Manufacturer will notify SCE San Onofre Units 2 and 3 on 01/14/04.

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IE19

Fax

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Date: 14 January 2004 **Pages (including cover):** 5

to: NRC Operations Duty Officer **from:** David Jarrow - QA Manager

cc: Mr. M. Wilson – VP& COO MGPI

phone: 301-816-5100

fax: 301-816-5151

subject: 10 CFR 21 Self Notification, Event 40445 @ 12:39 PM, January 14, 2004
MGP Instruments Inc Radiation Monitoring System,
Radiation Monitoring System, Particulate Type
Possible underestimation of volumetric activity following an automatic filter advance

Pursuant to our earlier telephone notification (this date), attached please find a copy of our 10 CFR Part 21 self-notification letter, the original of which is being sent by courier.

This facsimile notification is being provided in accordance with the requirements of 10 CFR 21.21. Please be advised that the affected utility has also been notified by telephone and fax.

Should you have any questions please do not hesitate to contact me at 770-432-2744 X 119

David Jarrow
MGP Instruments Inc.
Quality Assurance Manager

5000 Highlands Parkway Suite 150
Smyrna, GA 30082
Tel (770)432-2744, Fax (770)432-9717

Via: Fax and Courier

14 January 2004

US NRC Headquarters Operations Center
Document Control Desk
Nuclear Regulatory Commission
Washington, DC 20555

Subject: 10 CFR part 21 Notification - MGP Instruments Inc.
Radiation Monitoring System, Particulate Type
Possible underestimation of volumetric activity following an automatic filter advance

Reference: NRC Event Number: 40456 SAL
Part name: Local Processing Unit, PIPS Particulate (LPU PIPS-P)
Part number: RMS-9041-SR with Application Software 564J

Dear Madam or Sir,

On 19 December 2003 MGP Instruments Inc. (MGPI Inc.) became aware of a potential anomaly in a particulate radiation monitor, involving a specific family of local processing units (LPUs) manufactured by MGPI. Several LPUs were delivered for use in a safety related application as part of a fixed radiation monitoring system. MGPI Inc. hereby notifies the Commission, and the affected utility, in accordance with the requirements of 10 CFR Part 21.

Based upon operational experience in a European nuclear facility, our sister organization (MGP Instruments SA) has determined that when an automatic filter advance occurred and, following a significant step change in specific activity, the measurement results could be underestimated. This underestimation exceeds the instruments specified accuracy level. Subsequent investigation into the cause of this anomaly indicated that the LPU's Application Software is not correctly updated with the filter advance signal.

The radiation monitor's particulate filter is stationary and it advances upon command from the LPU. The automatic filter advance scenarios are:

- High/low flow rate
- High/low differential pressure
- High activity
- Elapsed time

In addition to the above, the filter can also be advanced upon manual command to the LPU.

The observed anomaly only occurs under certain conditions of automatic filter advance following a significant step change in activity. No credible anomaly is observed under manual filter advance command.

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This anomaly is unlikely to affect the measurement results under normal operating conditions, or when a filter advance occurs prior to a step change in activity. However, a possible operational scenario exists that could occur, under accident or mild accident conditions, where a filter advance follows a step change in activity and therefore measurement results could be under-reported.

No such anomaly had been observed by MGPI Inc. or reported to MGPI Inc. from users within the US, prior to the information received through MGPI SA.

On 14 January 2004 MGPI Inc. completed a technical review and concluded that the anomaly constituted a failure to comply with the specification. Initial notification of this matter was provided by telephone to the NRC Operations Center, and the affected utility, in accordance with 10 CFR Part 21.

The safety related application of this device is limited to its installation at Southern California Edison's San Onofre Nuclear Generating Station. In particular, these devices are used exclusively in the Particulate Radiation Monitoring channel designated by the utility as skids 7804 and 7807. Eight (8) LPU PIPS-P were delivered for this application including those provided as replacement and spare parts (serial number listing indicated in attachment B).

Additional information about this issue may be obtained by contacting the undersigned or Mr. David Jarrow MGP Instruments Inc. Quality Assurance Manager at (770) 432-2744, extension 119 or Dr. Mike Edelman, Vice President at (770) 432-2744, extension 132.

Sincerely Yours:

Dr. Lee Edelman for M.W.

Michael S. Wilson
Vice President and Chief Operating Officer
MGP Instruments Inc.

MSW/ME/dj

Attachments:
Attachment A: 10 CFR Part 21 Notification Summary
Attachment B: Equipment Serial Number and Location Listing

cc:
By Fax:
Southern California Edison - Caroline McAndrews, Nuclear Oversight Division
- Robert McWey, Nuclear Oversight Division
Southern California Edison - Art Shean, Supervisor Nuclear Oversight
By E Mail:
MGP Instruments SA, Lamanon France: O. Dieudonne, V. Ponclet, J.L Gouronc, A. Pommier,
MGP Instruments Inc. Atlanta: D.Jarrow, M. Edelman, S.Lopez

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Attachment A:
10 CFR Part 21 Notification Summary:

MGP Instruments Inc. (MGPI Inc.) is providing the following information in accordance with 10 CFR 21.21 (c) (4).

I. Michael S. Wilson, Vice President and Chief Operating Officer, 5000 Highlands Parkway, Suite 150 Smyrna, Georgia 30082 is the responsible officer notifying the Nuclear Regulatory Commission under the provisions of 10 CFR Part 21.

II. The basic component involved in this condition are the Local Processing Units, PIPS- Particulate Type (LPU/PIPS-P) bearing the MGP Instruments Inc. part numbers RMS-9041-SR, containing application software 564J. These components were specifically configured for installation in Southern California Edison, San Onofre Nuclear Generation Station's - Particulate Monitoring skids 7804 and 7807 and associated spare / replacement parts.

III. The local Processing Units indicated in (II) above were manufactured by MGP Instruments Inc., Smyrna, Georgia.

IV. The possible underestimation of volumetric activity following an automatic filter advance is not in compliance with the requirements for accuracy and response time as detailed in the Southern California Edison Procurement Specification No. SO I23-060-12 (rev. 2 dated January 16 1995) sections 1.6.2.3.4 and 1.22.5.3

V. The discovery of a potentially reportable condition was identified under the provisions of 10 CFR part 21 on 19 December 2003. A technical review, completed on 14 January 2004, confirmed that there was a potential for safety impact.

VI. Southern California Edison, San Onofre Nuclear Generation Station, has eight (8) safety related local processing units LPU PIPS– P Type. The identification for these units is listed in Attachment B of this notification.

VII. MGPI Inc. will take the following corrective action:

The LPU PIPS Application Software (Version 564J) will be revised to properly process automatic filter advance signal. The revised software will be provided to the utility as soon as possible (estimated 60 days).

VIII. MGPI Inc. recommends that Southern California Edison take the following actions prior to the installation of the revised Application Software:

It is recommended that the particulate filter on skids 7804 and 7807 be manually advanced at a frequency determined by recent operational experience on-site (typically once every two to three days) and following any alarm condition.

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Attachment B:

Applicable Equipment Identification

SCE PO #	Equipment Type	MGPI P/N	Qty	S/N	Location
6V2D3002 (RAMSYS Monitors)	LPU/PIPS-P	RMS-9041-SR	4	960203	Skid: 3RE7804
				960204	Skid: 3RE7807
				960205	Skid: 2RE7804
				960207	Skid: 2RE7807
6E256015 (Spare Part)	LPU/PIPS-P	RMS-9041-SR	2	960202	Delivered to: SCE Warehouse
				960206	Delivered to: SCE Warehouse
6G279914 Release A014 (Spare Part)	LPU/PIPS-P	RMS-9041-SR	1	020401	Delivered to: SCE Warehouse
6G279914 Release A024 (Spare Part)	LPU/PIPS-P	RMS-9041-SR	1	030506	Delivered to: SCE Warehouse